

Preventing the Spread of Pests and Diseases

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Introduction

This chapter gives directions for preventing the spread of pests or diseases when those pests or diseases are found on or with any conveyance, stores, baggage, mail, or importation, or when contamination with disease agents is possible. When selecting a method to kill pests or to apply safeguards, always choose the least severe method. The most common methods, in ascending order of severity, are as follows:

- ♦ Quarantine
- Safeguarding (measures such a sealing or stopping the off-loading of cargo)
- Cleaning and disinfecting
- **♦** Treatment
- ◆ Return to shipping point (interstate movement)
- ♦ Reexport
- ♦ Seizure and destruction



Do not use reexport or seizure and destruction methods to kill pests or apply safeguards unless there is no less severe alternative that will prevent the dissemination of the pest.

Emergency Procedures

Taking Action Based on the Pest at Hand

After a pest is submitted to the USDA APHIS Plant Inspection Station with a PPQ Form 309A, you are notified if the pest is actionable or not. Determine the action to take based on the pest at hand. Go to **Table 6-1-1**.

TABLE 6-1-1: Determine Action to take Based on Pest at Hand

If the pest is:	Then:	
Actionable	SAFEGUARD the shipment; collect the paperwork; prepare an EAN	
Nonactionable	Emergency measures are unnecessary	

Safeguarding Cargo and Giving the Importer an Opportunity to Voluntarily Treat Cargo Pending Issuance of Emergency Order

When a pest is found in a perishable commodity shipment, it may not be feasible to wait 1-3 days for final pest identification. In this situation, treatment can be authorized prior to final pest identification. Prevent any chance of the pests escaping after the inspection and before the cargo is fumigated. Submit the interception as URGENT.

TABLE 6-1-2: Procedures for Voluntary Treatment of Cargo Pending Issuance of Emergency Action Order

If the importer or the importer's agent:	And the pest's identity is confirmed as:	Then:
Wants to have the cargo treated prior to having the pest's identity confirmed	-	ALLOW the cargo to be treated prior to confirmation and continue to <i>Issuing an Emergency Action Notification</i> on page 6-1-3 ¹
Is willing to wait to have the pest's identity confirmed	Actionable	REQUIRE that the cargo be treated CONTINUE to Issuing an Emergency Action Notification on page 6-1-3
	Nonactionable	RELEASE the cargo

¹ In block 12 of the Emergency Action Notification, enter the statement "Possible quarantine pest."

Issuing an Emergency Action Notification

Fill out PPQ Form 523, Emergency Action Notification (EAN). See **Table A-1-35** for instructions on completing this form.

Give the importer 24 hours from the time you issue the order to have the cargo treated. You may shorten the deadline, but only if there is an imminent risk of pest escape or dispersal. If 24 hours presents a hardship, and it is safe to do so, you may extend the deadline another 24 hours. Only the Port Director may grant an extension beyond 48 hours. If the importer **does not** meet the deadline you set, initiate violation procedures. Prevent further dissemination of the pest by applying appropriate measures.

Issue PPQ Form 523, Emergency Action Notification, to the importer or the importer's agent. Make sure an authorized official signs the form to acknowledge receipt. Hold the original of this form for later revocation. Continue to *Deciding if Commodity Has to Be Treated*.

Deciding if Commodity Has to Be Treated

Cargo that Has Been Discharged

Cargo Remaining in the Ship's Hold Treat with an approved treatment all identical commodities from the same shipper that were from the same port and that were on the same carrier (consider as a unit for purposes of inspection and fumigation).

In general, treat all cargo in the ship's hold where the infestation was discovered with an approved treatment. Because of the pest's association with the infested material, there is sufficient reason to believe the pest is present throughout the hold. Your authority to require fumigation of all associated cargo is 7CFR 330.106(d).

Experienced CBP Agriculture Specialists, based on their professional judgment, may make exceptions to fumigating all the cargo in the hold. Factors in allowing such exceptions include the following:

- ◆ Character of the cargo (containerized or bulk)
- ◆ Degree of infestation
- Location of the infested cargo in the hold
- Practicability of a thorough inspection

If you are hesitant about deciding what to treat, check with your CBP Agriculture Specialist. Continue to **Preventing Damage to Commodities Being Treated**.

Preventing Damage to Commodities Being Treated



Identifiers/PIS will prescribe a treatment that will do the least damage to the commodity and still kill the pest. When treating a cargo hold, allow the removal of articles that maybe harmed by the pesticide (fumigant). Before allowing the removal of any article, ensure that the following conditions are met.

Articles that may be harmed by the pesticide (fumigant) may be removed only if the following conditions are met:

- ◆ The article must **not** be infested or show signs of contamination
- ◆ The article's removal must **not** contribute to the spread of the pest
- ◆ The owner or the owner's agent must be willing to remove the articles immediately
- ◆ The owner or the owner's agent must agree to follow directions from the CBP Agriculture Specialist or USDA-APHIS-PPQ Officer



Foam rubber and possibly other parts of an automobile may be harmed by methyl bromide. If all the bulleted conditions described immediately above are met, the officer may allow the removal of the automobile from the hold that is being fumigated.

Revoking the Emergency Action Notification After Cargo Is Treated

Transfer the cargo that requires treatment to PPQ to supervise the treatment and close out the EAN. Once the cargo is treated, endorse *Block 16* (Revocation of Notification) on the original PPQ Form 523 that you held. Return this signed original to the importer or the importer's agent.

Remedial Measures Policy and Procedures

See **PPQ Form 301-R, Remedial Measures Billing (Statement of Services)** on page A-1-27 for further information.

Cleaning and Disinfecting

If any article or surface is contaminated with an animal material or with spillage from regulated garbage, then that article or surface must be cleaned and disinfected. If you detect leaks from packages or containers holding prohibited or restricted animal products, then the contaminated pallets, machinery used in handling, dock or warehouse areas used for storage, or trucks or railroad cars used for transporting the products must be cleaned and disinfected before they are reused. CBP Agriculture Specialists should ensure the contaminated surfaces have been cleaned and disinfected by a certified contractor under compliance agreement.



Spills of regulated garbage in areas where food is prepared should be cleaned and sanitized by the caterer using the caterer's product.



CBP is responsible for safeguarding aircraft contaminated with animal waste such as manure and straw. Notify APHIS Veterinary Services (VS) of the aircraft arrival. VS or their designated representative is responsible for the cleaning and disinfection of these aircraft in accordance with 9 CFR 95.26. Please contact the local Area Veterinarian In Charge as listed in Appendix H of the Animal Products Manual (APM)

Materials for Disinfectant Kit

Include the following items in a disinfectant kit:

- ◆ Gallon plastic container filled with water
- ◆ Insulated box, such as an ice chest, for holding the materials used to disinfect; label the box "DISINFECTANT KIT" and type and affix directions for its use inside the lid
- ◆ Leakproof, double plastic bags to hold collected material
- ◆ Material Safety Data Sheets (MSDS) for Virkon S, sodium hypochlorite, and sodium carbonate
- ◆ Pint spray bottle
- ♦ Roll of paper towels
- Scrub brush and a scraping tool
- ♦ Whisk broom and dust pan

Personal Protective Equipment

Have the following protective clothing and safety equipment available:

Skin Protection

- ◆ Disposable, plastic shoe covers
- ◆ Pair of rubber gloves or disposable, plastic gloves
- ◆ Coveralls (if you are using a solution of 3% sodium hypochlorite)
- ◆ Rubber apron (if you are using Virkon S)

Eye Protection

◆ Safety goggles or full face shield (necessary only if you must prepare a solution of 3% sodium hypochlorite)

Selecting the Appropriate Disinfectant

- **1.** Use **Table 6-1-3** to classify the contaminated article.
- **2.** Use **Table 6-1-4** to select the appropriate disinfectant based on the article being disinfected, the animal class involved, and the disease at risk.
- **3.** Go to Table 6-1-5 for disinfectant mixing instructions.

TABLE 6-1-3: Classify the Article

If the article is:	Then:
Aircraft	GO to <i>Cleaning and Disinfecting</i> on page 3-2-5 in the <i>Cleaning Aircraft</i> section of <i>Examining Carriers</i>
Footwear	GO to Disinfecting Footwear on page 4-1-13 in the chapter Clearing Passengers , Crew , and Baggage
Other than ¹ aircraft or footwear	GO to Table 6-1-4

¹ For example, storage area, farm machinery, pallet, fork lift, pier, stall, RR car, any outdoor area contaminated by foreign garbage.

TABLE 6-1-4: Select the Appropriate Disinfectant

If the source is:	And the risk is:	Then use one of the following disinfectants:
Swine or a pork product	Solely FMD	◆ 1 percent solution of Virkon®S,
		◆ 4 percent solution of sodium carbonate
		◆ 4 percent solution of sodium carbonate with 0.1 percent sodium silicate, or
		◆ 3.0 percent solution of sodium hypochlorite¹
		◆ 1.0 percent solution of sodium hypochlorite ²
		◆ 0.1 percent solution of sodium hypochlorite ³
	Solely CSF or any	◆ 1 percent solution of Virkon®S, or
	combination of ASF, CSF, FMD,	◆ 3.0 percent solution of sodium hypochlorite¹
	and/or SVD	◆ 1.0 percent solution of sodium hypochlorite ²
		◆ 0.1 percent solution of sodium hypochlorite ³
Ruminant		◆ 1 percent solution of Virkon®S,
		◆ 4 percent solution of sodium carbonate
		◆ 4 percent solution of sodium carbonate with 0.1 percent sodium silicate, or
		◆ 3.0 percent solution of sodium hypochlorite¹
		◆ 1.0 percent solution of sodium hypochlorite ²
		◆ 0.1 percent solution of sodium hypochlorite ³
Bird or poultry product, foreign garbage, unknown, or any combination of animals		◆ 1 percent solution of Virkon®S, or
		◆ 3.0 percent solution of sodium hypochlorite¹
	—	◆ 1.0 percent solution of sodium hypochlorite ²
		◆ 0.1 percent solution of sodium hypochlorite ³

- 1 This is the strength necessary for heavily contaminated areas. CAUTION: Use personal protective equipment (PPE), i.e. gloves and goggles when applying at this concentration.
- 2 This is the strength necessary for **moderately** contaminated areas.
- 3 This is the strength to use in baggage or passenger areas.

Preparing the Disinfectant

Mix the disinfectant using **Table 6-1-5** for formulas and instructions. Prepare fresh batches of disinfectant as practicable.



Never use the disinfectants listed in **Table 6-1-5** around food or in areas where food is handled or prepared. When disinfecting such areas, allow the use of a sanitizer that is normally used around foods. If the sanitizer will be flushed off, it must be one approved by the EPA. If the sanitizer will **not** be flushed off, it must be one approved by the FDA.

TABLE 6-1-5: Formulas and Instructions for Mixing Disinfectants

If you need a solution of:	Then:		
4 percent sodium carbonate (common name soda ash)	This solution is only mildly caustic but can dull painted and varnished surfaces. 1. ADD 5.33 ounces of the sodium carbonate to each gallon of water (or 1 pound to 3 gallons of water or 15 pounds to 45 gallons of water) 2. MIX thoroughly		
4 percent sodium carbonate with 0.1 percent sodium silicate	ADD 5.33 ounces of the sodium carbonate to each gallon of water ADD 4 ml. of sodium silicate solution to each gallon of water MIX thoroughly		
Virkon®S 1% solution	Never pour the water over the Virkon® S powder because the Virkon® S could splash on you. Only add Virkon® S powder to the water. If any of the solution comes in contact with your eyes, immediately flush with water and immediately get medical attention. If the solution comes in contact with your skin, immediately flush with water, then rinse with vinegar.		
	 PUT on rubber gloves, rubber apron, mask (N95 or better) and face shield ADD 1.3 ounces or 8 teaspoons or 37 grams of Virkon®S concentrate to 1 gallon of water STIR gently; do not stir vigorously (the solution should be yellow in color and will have a slight citrus odor) RESEAL the container holding the Virkon®S powder POUR the Virkon®S solution (using a plastic funnel) into a 1, 2.5, or 5 gallon plastic container CLOSE the container tightly. DISPOSE of solution after 7 days or when yellow color fades, whichever comes first WASH hands and any other areas where the solution or powder may have come in contact with the skin CLEAN the mixing area 		
Sodium hypochlorite (household bleach)	This solution will discolor clothing. Therefore, as a precaution, dry the disinfected item or put it in a plastic bag. Wear gloves, eye protection, and an apron when applying bleach. GO to Table 6-1-6		



Formulas and instructions for mixing sodium hypochlorite are for practical use. Calculations are approximate.

TABLE 6-1-6: Formulas and Instructions for Mixing Sodium Hypochlorite

If you need a:	And the concentration of available chlorine ¹ is:	Then:
0.1 percent solution of the disinfectant ²	5.25%	ADD 5 tablespoons (2.5 ounces) of bleach to gallon of water (or 1 gallon of bleach to 50 gallons of water) MIX thoroughly
	6%	ADD 4 tablespoons and 1 teaspoon (2.3 ounces or 65 ml) of bleach to 1 gallon of water (or 13 cups of bleach to 50 gallons of water) MIX thoroughly
1.0 percent solution of the disinfectant ³	5.25%	ADD 4 cups (32 ounces) of bleach to 1 gallon of water MIX thoroughly
	6%	ADD 3.2 cups (26 ounces) of bleach to 1 gallon of water MIX thoroughly
3.0 percent solution of the disinfectant ⁴	5.25%	Use personal protective equipment (PPE), i.e. gloves and goggles when applying at this concentration.
		 ADD 1.3 gallons (170 ounces) of bleach to 1 gallon of water (or 4 parts bleach to 3 parts water) MIX thoroughly
	6%	Use personal protective equipment (PPE), i.e. gloves and goggles when applying at this concentration.
		ADD 1 gallon of bleach to 1 gallon of water MIX thoroughly

- 1 Determine the percent of available chlorine by checking the container's label. Sodium hypochlorite or "bleach" comes in two concentrations: 5.25 or 6 percent available chlorine.
- 2 This is the strength to use in baggage or passenger areas.
- 3 This is the strength necessary for **moderately** contaminated areas.
- 4 This is the strength necessary for **heavily** contaminated areas.

Removing Excess Contaminant

Sweep up or scrape off as much of the contaminant as possible. Put the sweepings or scrapings into a leakproof, double plastic bag for incineration later. Free surfaces from dirt and grease if applicable.

Scrubbing Contaminated Area

Scrub the contaminated area or the area where the spillage occurred with a good detergent solution.



If the area is **not** effectively scrubbed first, then any viruses protected by the organic material remain untouched and the disinfectant is **not** effective.

Flushing Scrubbed Surfaces

Flush the scrubbed surfaces with clean water. Flushing is important because the detergent may react with the disinfectant and reduce its activity.

Applying Disinfectant

If using a premixed solution of disinfectant, agitate it thoroughly. If the temperature is below freezing, delay the application of the disinfectant until the temperature is above freezing. Apply the disinfectant.

Incinerating Refuse

Incinerate all refuse that was swept up or scraped off.